

MEMORANDUM

April 21, 1992

TO: Wayde Hartwick
U.S. EPA - Remedial Project Manager

FROM: Joe Adams
Warzyn Inc.

RE: Minutes of Meeting
American Chemical Services NPL Site
Griffith, Indiana
April 2, 1992

ATTENDANCE: Wayde Hartwick - U.S. EPA
Jim Burton - Roy F. Weston
Harry Bhatt - Malcolm Pirnie
Joe Adams - Warzyn Inc.
Mark Rothas - Warzyn Inc.
Ron Frehner - Conestoga Rovers Associates
John Manley - IDEM
Gordon Kuntz - Sherwin Williams
James Hazen - CSX Transportation

The following is a summary of our meeting on April 2, 1992 at the offices of U.S. EPA Region V on Jackson Street in Chicago. The purpose of the meeting was to discuss the alternative remedies for the site.

SCHEDULE: Wayde Hartwick stated that the schedule for completing the RI/FS for the site is:

- May 1, 1992 - proposed plan developed for internal EPA review
- June 1, 1992 - proposed plan submitted to public
- Mid-June - public hearing in Griffith, Indiana
- July 1, 1992 - end of 30-day comment period
- August 1, 1992 - end of 60-day comment period
- Mid-August, 1992 - record of decision (ROD) completed

Wayde Hartwick stated that EPA has finalized the ecological assessment. They would like the PRPs to incorporate the ecological assessment into the RI/FS. Mr. Hartwick will be sending a letter to the PRPs within the next few weeks.



PROPOSED

REMEDY: Mr. Hartwick stated that U.S. EPA is considering Alternative 5, Alternative 6, or a combination of the two as the proposed remedy for the site. Mr. Hartwick stated that the remedy will consist of the following components:

- a groundwater pump and treat system
- the removal of intact drums from the onsite disposal area
- treatment of contaminated soils at the site with soil vapor extraction
- the Griffith Municipal Landfill would be closed by the Town of Griffith under Indiana Solid Waste Regulations; the landfill closure would not be a part of the remedy for the ACS site
- EPA will require additional sediment and surface water sampling of the wetlands area west of the site
- treated groundwater would be discharged to both surface water bodies and the wetland to maintain viability of the wetland areas

The remainder of the discussion focussed on the treatment of waste areas at the site, in particular the offsite disposal area and the Still Bottoms Pond. Mr. Hartwick stated that EPA is concerned that vapor extraction technology would not adequately treat the waste at the site because of the drums that were disposed of in the offsite disposal area. The concern is that a drum may rupture at some point in the future causing a new release to the soils and groundwater at the site. Mr. Hartwick stated that the U.S. EPA may prefer removal of the drums and treatment on site with low temperature thermal treatment. He stated that EPA felt that the excavation of the drums could be controlled to prevent risk to workers and residents in the area. Mr. Hartwick stated that EPA was also concerned that the pilot scale test of the vapor extraction system could possibly delay the remedy of the site if it was later determined that vapor extraction was not appropriate for use at the site.

Warzyn and Conestoga Rovers responded to U.S. EPA concerns for Alternative 5 with the a discussion of why we believe Alternative 5 is the most appropriate remedy for the site. The discussion included technical considerations, state acceptance, and community acceptance, but focussed on our position that Alternative 5 should be selected for the site because it provides the best balance of reducing risk to workers and the general population and overall restoration of the environment. This is based on the following discussion:

- Short Term Safety - the materials that were disposed of in the Offsite Containment Area contain very high levels of volatile organic compounds and may contain incompatible waste. These wastes are



currently in an equilibrium condition. Excavation of the waste will certainly cause significant volatilization of waste materials and may cause incompatible wastes to be mixed. While U.S. EPA stated that precautions can be taken to limit the size of the excavation and enclose the excavation within a structure, it is our strong opinion that the excavation would still be a very uncontrolled situation. Our position is that the time between recognition in the field that volatilization is occurring at a rapid rate and the time potentially explosive conditions would exist within the building would be very short. On the other hand, with Alternative 5 the volatile organic compounds removed by the vapor extraction system would occur in a much more controlled environment.

- Drummed Waste - U.S. EPA is concerned that intact drums may rupture at some point in the future causing a release to the environment. We discussed that the data regarding past operations at the site strongly supports that few, if any, intact drums remain. This is based on the following:
 - Wastes that were liquid would have been incinerated in the onsite incinerator.
 - Partially full, but open, drums would have been taken to the offsite disposal area.
 - A drum recycling operation existed near the offsite disposal area. Therefore, drums in good condition would be expected to be recycled because they had a cash value. Therefore, only drums in bad condition would be disposed of in the offsite disposal area.
 - ACS personnel have stated that drums were crushed prior to being disposed of in the offsite disposal area. They stated that drums that floated were punctured so that they sunk to the bottom of the excavation.
 - Drums have been buried at the site in a corrosive environment underwater for more than 17 years. In addition, the remedy is expected to go on for 30 years. Therefore, it is highly unlikely that any drums would survive intact for this timeframe.
- Schedule - U.S. EPA has stated its concern that the pilot testing program would delay the remedy. However, groundwater, the primary migration pathway, will be eliminated within the first few years by installation and operation of a groundwater pump and treat system. The overall timeframe for completing the remedy including groundwater is 30 years. We have anticipated that 5 years would be required for the vapor extraction of waste materials at the site. With the 2 year pilot



testing program prior to full scale operation, the total time to complete the remedy of the waste is 7 years. Therefore, the project schedule will not be delayed by use of vapor extraction. It should be noted that the cost estimates for vapor extraction of waste materials have allowed up to 15 years for the remedy to be completed. This is 3 to 5 times the normal treatment program anticipated for vapor extraction programs. Even if this 15 years is required, the overall treatment program can be completed within the 30 year timeframe of the remedy.

- Pilot Study Protocol - The U.S. EPA communicated its concern pertaining to the protocol that would be used to evaluate the effectiveness of vapor extraction treatment in the waste areas during the 2 year pilot study. The best methodology would be to compare data from soil samples taken during the installation of the pilot study wells and at the end of the pilot study period. However, Mr. James Burton of Roy F. Weston indicated during the meeting that there may not be a statistical difference in the contaminant concentrations in the waste areas at the end of the 2 year study period. Even if the soil sampling data are not conclusive, it is Warzyn's belief that the monitoring of pressure gradients and soil and exhaust gas concentrations will provide sufficient data to project the long term effectiveness of vapor extraction treatment.

Data will be obtained from the use of soil gas probes to measure pressure gradients and soil gas concentrations. This monitoring data will allow for the evaluation of air flow paths and the effects of subsurface obstructions (e.g., buried drum remnants and potential subsurface sludge) on potential removal efficiencies. In addition, by comparing exhaust gas concentrations from the waste areas versus the remainder of the site, the ability of vapor extraction to achieve direct air contact with the contaminants can be evaluated. If vapor extraction in the waste areas is found to achieve sufficient air contact and removal efficiencies, the timeframe necessary to treat the waste areas should be easily within the 30 year schedule proposed for groundwater treatment.

- Cost Difference - The feasibility study shows that the net present worth of Alternative 5 is \$33 million and the net present worth of Alternative 6 is approximately \$38 million. It was pointed out that Alternative 6 assumes that 35,000 cubic yards of waste would be thermally treated at the site. However, up to 65,000 cubic yards of waste may exist at the site. We are concerned that once an excavation is started, the actual volume to be incinerated may approach 65,000 cubic yards as opposed to 35,000 cubic yards. This would add at least an additional \$10



million to the actual cost of Alternative 6. Therefore, the real cost difference between Alternatives 5 and 6 may actually be on the order of \$15 million.

- State Acceptance - The Indiana Department of Environmental Management has stated that its preference for the site is Alternative 5.
- Community Acceptance - There has been discussion that there will be significant community resistance to incineration alternatives at the site. The selection of Alternative 5 provides the opportunity to treat the waste without excavation. Therefore, the probability of community acceptance of Alternative 5 will be much greater.

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